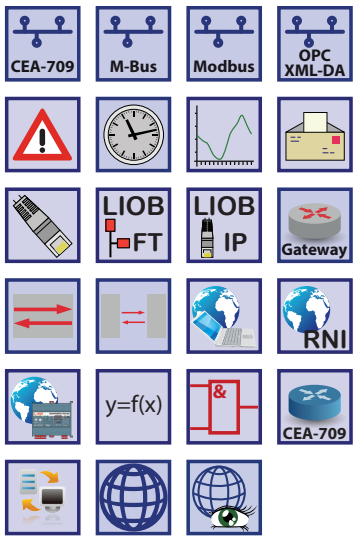
L-INX Automation Server

LINX-110, LINX-111

LOYTEC COMPETENCE PARTNER

BACnet ✓ Modbus
✓ CEA-709 ✓ M-Bus
KNX ✓ OPC

Datasheet #89022006

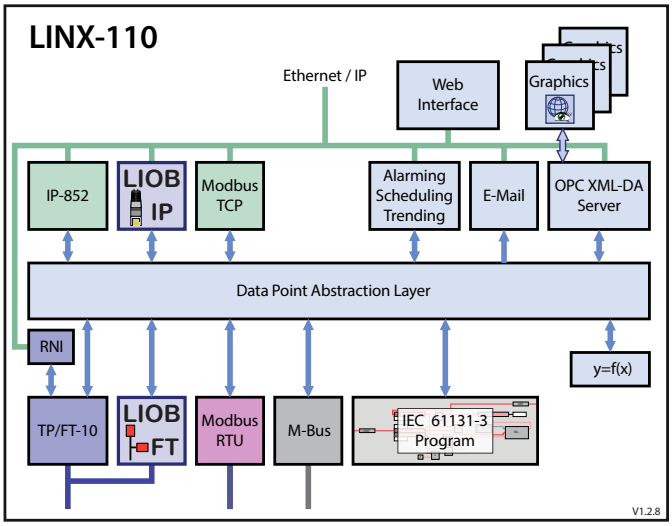


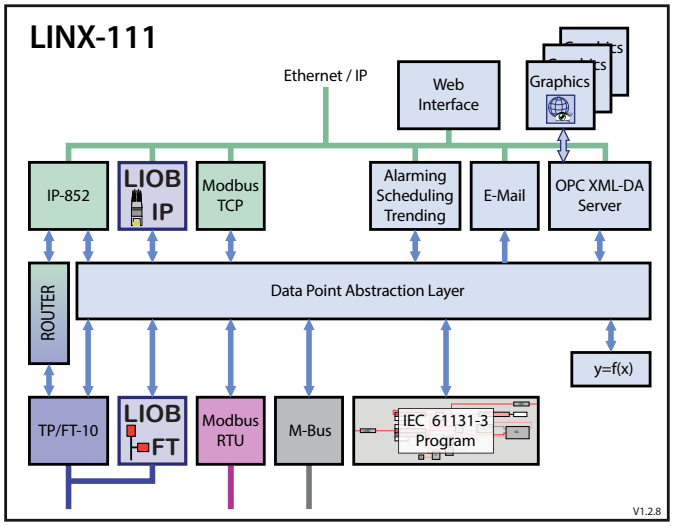
The L-INX Automation Servers LINX-110 and LINX-111 are programmable automation stations. They can host user specific graphical pages and can integrate physical I/Os through L-IOB I/O Modules via LIOB-FT or LIOB-IP.

The Automation Servers provide connectivity functions to concurrently integrate CEA-709 (LonMark Systems), Modbus, and M-Bus subsystems. LonMark Systems can be integrated via IP-852 (Ethernet/IP) or TP/FT-10. LINX-110 Automation Servers feature an integrated Remote Network Interface (RNI) to access the TP/FT-10 channel on the device via Ethernet/IP. LINX-111 Automation Servers feature a built-in IP-852 router providing the complete feature set of the corresponding L-IP devices. In addition, the L-INX Automation Servers provide connectivity to Modbus TCP via Ethernet/IP and to Modbus RTU via RS-485. M-Bus device integration needs an optional interface module.

The gateway functionality allows data communication between all communication technologies available on the device. Different technology data points are mapped through Local Connections on the device. The mapping of different technology data points on distributed devices is supported by Global Connections. L-INX Automation Servers also support Smart Auto-Connect™ – the automatic generation of connections to substantially reduce engineering efforts and cost. All technology data points are automatically created as OPC XML-DA data points.

The L-INX devices provide fully featured AST™ functionality (Alarming, Scheduling, and Trending) and can be integrated perfectly into the L-WEB System.





LINX-110, LINX-111

Features

- IEC 61131-3 programmable with L-LOGICAD
- Extension with physical inputs and outputs using L-IOB I/O Modules (LIOB-FT or LIOB-IP852)
- Alarming, Scheduling, and Trending (AST™)
- Event-driven e-mail notification
- Math objects to execute mathematical operations on data points
- Stores customized graphical pages
- Visualization of customized graphical pages through LWEB-900 (Building Management), LWEB-803 (Monitoring and Control), or LWEB-802 (Web Browser)
- Built-in OPC XML-DA server
- Access to network statistics
- Compliant with CEA-709, CEA-852, and ISO/IEC 14908 Standard (LonMark System)
- Supports TP/FT-10 or IP-852 (Ethernet/IP)
- Support of dynamically created or static NVs
- Support of user-defined NVs (UNVTs) and Configuration Properties (SCPTs, UCPTs)
- Remote Network Interface (RNI) with 2 MNI devices (LINX-110 only)
- Integrated IP-852 to TP/FT-10 Router (LINX-111 only)
- M-Bus Master according to EN 13757-3, connection via optional M-Bus Converter (L-MBUS20 or L-MBUS80)
- Modbus TCP and Modbus RTU (Master or Slave)
- Gateway functions including Smart Auto-Connect™
- Integrated web server for device configuration and monitoring data points
- Configurable via Ethernet/IP or TP/FT-10

Specifications

Dimensions (mm)	107 x 100 x 60 (L x W x H), DIM009
Installation	DIN rail mounting following DIN 43880, top hat rail EN 50022
Power supply	12-35 V DC / 12-24 V AC ±10 %, typ. 3 W
Operating conditions	0 °C to 50 °C, 10 – 90 % RH @ 50 °C, non condensing, degree of protection: IP40, IP20 (terminals)
Interfaces	1 x Ethernet (100Base-T) OPC XML-DA LIOB-IP LonMark IP-852* Modbus TCP (Master or Slave) HTTP, FTP 1 x TP/FT-10* (LonMark System) along with terminal LIOB-FT 1 x LIOB-FT 1 x Modbus RTU (Master or Slave) 1 x M-Bus (Master EN 13757-3) 1 x RS-232 (EIA-232) *LINX-110: * Either LonMark IP-852 or TP/FT-10* *LINX-111: * Router between LonMark IP-852 and TP/FT-10*
L-IOB I/O Modules	Up to 8 L-IOB I/O Modules in any combination of type LIOB-FT and LIOB-IP852
Remote Network Interface	1 RNI with 2 MNI devices (LINX-110 only)
CEA-709 Router	1 (LINX-111 only)
Program cycle time	Down to 10 ms
Programming, Tools	L-LOGICAD software (IEC 61131-3), L-INX/L-GATE Configurator

Resource limits

Total number of data points	10 000	Total trended data points	256
OPC XML-DA data points	500	E-mail templates	100
Network variables (NVs)	1 000	Math objects	100
Alias NVs	1 000	Alarm logs	10
External NVs (polling)	1 000	M-Bus data points	1 000
Address table entries	1 000 (non-ECS mode: 15)	Modbus data points	2 000
LonMark Calendars	1 (25 calendar patterns)	Connections (Local / Global)	1 000 / 250
LonMark Schedulers	100	Number of L-WEB clients	15 (simultaneously)
LonMark Alarm Servers	1	L-IOB I/O Modules	8 (LIOB-FT or LIOB-IP852)
Trend logs	256 (390 000 entries, ≈ 6 MB)		

LINX-110, LINX-111

Order number	Product description
LINX-110	CEA-709 Automation Server, IEC 61131-3 programmable, built-in Remote Network Interface (RNI)
LINX-111	CEA-709 Automation Server, IEC 61131-3 programmable, built-in IP-852 Router
LINX-START-M	Starter kit: 1 x LINX-11x/21x, 2 x L-IOB I/O Module, 1 x LPOW-2415B, and L-LOGICAD software license
L-LOGICAD-USB	IEC 61131-3 programming tool, single license, includes USB dongle
LIOB-150	LIOB-FT I/O Module: 8 UI, 2 DI, 2 AO, 8 DO (4 x Relay 6 A, 4 x Triac 1 A)
LIOB-151	LIOB-FT I/O Module: 8 UI, 12 DI
LIOB-152	LIOB-FT I/O Module: 6 UI, 6 AO, 8 DO (8 x Relay 6 A)
LIOB-153	LIOB-FT I/O Module: 6 UI, 6 AO, 5 DO (4 x Relay 16 A, 1 x Relay 6 A)
LIOB-154	LIOB-FT I/O Module: 7 UI, 4 AO, 7 DO (5 x Relay 6 A, 2 x Triac 1 A), 1 Pressure Sensor
LIOB-450	LIOB-IP852 I/O Module: 8 UI, 2 DI, 2 AO, 8 DO (4 x Relay 6 A, 4 x Triac 1 A)
LIOB-451	LIOB-IP852 I/O Module: 8 UI, 12 DI
LIOB-452	LIOB-IP852 I/O Module: 6 UI, 6 AO, 8 DO (8 x Relay 6 A)
LIOB-453	LIOB-IP852 I/O Module: 6 UI, 6 AO, 5 DO (4 x Relay 16 A, 1 x Relay 6 A)
LIOB-454	LIOB-IP852 I/O Module: 7 UI, 4 AO, 7 DO (5 x Relay 6 A, 2 x Triac 1 A), 1 Pressure Sensor
LPOW-2415B	Power supply unit with power connector 24 V DC, 15 W
L-MBUS20	M-Bus level converter for 20 M-Bus devices
L-MBUS80	M-Bus level converter for 80 M-Bus devices